

—Standard Valves—

4094-A
Valve

4094-A VALVE

TRIODE.

This valve is similar to the 4012-A valve but employs a thoriated tungsten filament, molybdenum anode and hard glass bulb.

SPECIFICATION.

Cathode.

Thoriated tungsten filament.
Constant voltage type.

Base.

Large 4-pin bayonet.

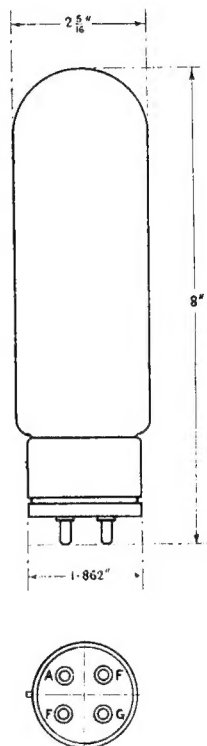
Dimensions.

Maximum overall length 8" (20.4 cms.)
Maximum bulb diameter $2\frac{5}{16}$ " (5.9 cms.)
Net weight 0.36 lb. (164 gms.)

Constants.

| | |
|--------------------------|-----------------------|
| Filament voltage | 10 volts |
| Nominal filament current | 3.25 amps. |
| Total emission | 1.5 amps. |
| * Impedance | 9,300 ohms. |
| * Amplification factor | 37 |
| * Mutual conductance | 4 mA. per volt. |
| Anode-grid capacity | 14 $\mu\mu\text{F}$. |
| Grid-filament capacity | 9 $\mu\mu\text{F}$. |
| Anode-filament capacity | 4 $\mu\mu\text{F}$. |

* at $V_p = 1,000$ volts, $I_p = 30$ mA.



LIMITING CONDITIONS FOR SAFE OPERATION.

| | |
|---|-------------|
| Maximum direct anode voltage | 1,250 volts |
| Maximum direct anode current | 0.150 amps. |
| Maximum anode dissipation | 85 watts |
| Maximum direct grid current | 0.050 amps. |
| Maximum frequency for above ratings | 6 Mc. |
| Maximum anode voltage for frequency of 30 Mc. | 600 volts |

Note :—This valve should be mounted so that the plane of the filament is vertical.

Tentative data

V.4094-A.1
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TYPICAL OPERATING CONDITIONS.

| | Class B. A.F. Amp. and Mod. For balanced 2-valve circuits. | |
|-------------------------------------|---|-------------|
| Direct anode voltage | 1,250 | 1,000 volts |
| Grid bias (approx.) | —25 | —17 volts |
| Anode current per valve—zero signal | 0.030 | 0.030 amps. |
| Maximum signal | 0.150 | 0.150 amps. |
| Anode dissipation | 80 | 70 watts |
| Load resistance—anode to anode | 8,000 | 6,000 ohms |
| Maximum output—2 valves | 200 | 160 watts |

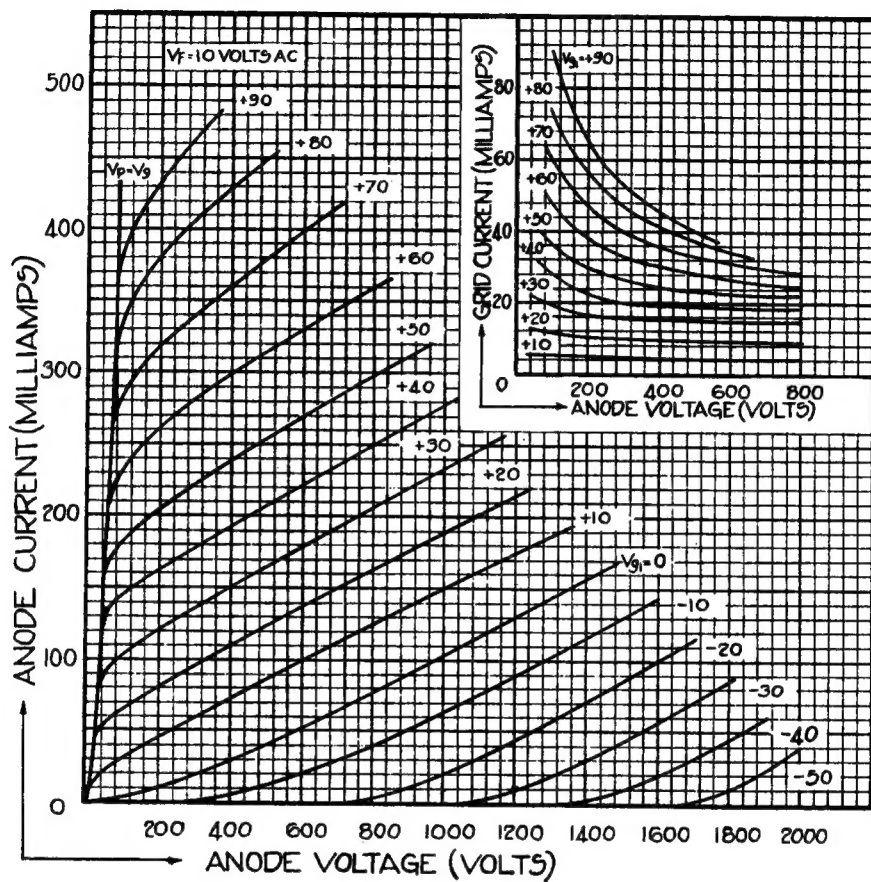
RADIO FREQUENCY OPERATION.

| | Class B. Telephony | |
|----------------------|--------------------------------------|-------------|
| | Modulated carrier applied to grid | |
| Direct anode voltage | 1,250 | 1,000 volts |
| Direct anode current | 0.105 | 0.130 amps. |
| Grid bias | —30 | —20 volts |
| Carrier output | 45 | 43 watts |
| Anode dissipation | 85 | 87 watts |

| | Class C. Telephony | | Class C. Telegraphy | |
|----------------------|-----------------------------------|-------|------------------------|----------------------|
| | Subject to anode modulation | | Unmodulated | |
| Direct anode voltage | 1,000 | 750 | 1,250 | 1,000 volts |
| Direct anode current | 0.150 | 0.130 | 0.150 | 0.150 amps. |
| Grid bias | —60 | —40 | —70 to —120 | —60 to —100 volts |
| Carrier output | 100 | 65 | 130 | 100 watts |
| Anode dissipation | 50 | 32 | 57.5 | 50 watts |

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